

Appl. No. 09/787,453  
Atty. Docket No. CM1910  
Amdt. dated 06/ 24 /2004  
Reply to Office Action of 04/06/2004  
Customer No. 27752

#### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A chemical entity comprising more than one chemical ~~components~~ component linked to an amino acid sequence, said amino acid sequence comprising a cellulose binding domain, wherein said chemical components are selected from the group consisting of encapsulating materials, perfumes, hygiene agents, insect control agents, bleaching agents, softener compounds, dye fixatives, soil release polymers, brighteners, enzymes, latexes, resins and mixtures thereof; and wherein said chemical components are covalently linked to said amino acid sequence via a linking region, wherein said linking region is a polyethylene glycol derivative.
2. (Currently amended) A chemical entity according to claim 1 wherein all ~~the~~ of said chemical components are linked directly to said amino acid sequence comprising [[a]] said cellulose binding domain.
3. (Currently amended) A chemical entity according to claim 1 wherein at least one of said chemical components is linked indirectly via a linking region to said [[an]] amino acid sequence comprising [[a]] said cellulose binding domain.
4. (Currently amended) A chemical entity according to claim 3 wherein at least one of said chemical components is linked directly to said amino acid sequence comprising a cellulose binding domain and at least one of said chemical components is linked indirectly via a linking region to said amino acid sequence comprising [[a]] said cellulose binding domain.
5. (Currently amended) A chemical entity according to claim 3 wherein all [[the]] of said chemical components are linked indirectly via a linking region to said amino acid sequence comprising [[a]] said cellulose binding domain.
6. (Previously presented) A chemical entity according to claim 5 wherein said linking region is a polyreactive linking region.

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7. (Currently amended) A chemical entity according to claim 6, wherein said amino acid sequence comprising [[a]] said cellulose binding domain comprises is further comprised by at least one Lysine amino acid.
8. (Canceled)
9. (Currently amended) A chemical entity according to claim [[8]] 1 wherein said chemical components [[is]] are selected from the group consisting of perfumes, hygiene agents, insect control agents, bleaching agents and~~[[/or]]~~ mixtures thereof.
10. (Currently amended) A chemical entity according to claim 9 wherein said perfume is selected from the group consisting of aldehydes, ketones and mixtures thereof, and further wherein:
  - (a) [[an]] said aldehyde-based compound, aldehydes are selected from the group consisting of: Helional™ α-methyl-3,4-methylenedioxy-hydrocinnamic aldehyde, alpha-hexyl-cinnamaldehyde, hydroxycitronellal, Liliat™ (p-tert.butyl-alpha -methyl-dihydrocinnamaldehyde), methyl-nonyl-acetaldehyde, 1-decanal, benzaldehyde, florhydral, 2,4-dimethyl-3-cyclohexen-1-carboxaldehyde[[:]], cis/trans-3,7-dimethyl-2,6-octadien-1-al[[:]], heliotropin[[:]], 2,4,6-trimethyl-3-cyclohexene-1-carboxaldehyde[[:]], 2,6-nonadienal[[:]], alpha-n-amyl cinnamic aldehyde, P.T. Bueinal, lyral, cymal, methyl nonyl acetaldehyde, hexanal, trans-2-hexenal and mixtures thereof; and
  - (b) a ketone-based compound, preferably a said ketones are selected from the group consisting of: allylionone, alpha-ionone, beta -ionone, isoraldein (isomethyl-alpha ionone), methylionone, Alpha Damascene, Delta Damascene, Iso Damascene, Carvone, Gamma Methyl Ionone, Iso E Super, 2,4,4,7 Tetramethyl-oct-6-en-3-one, Benzyl Acetone, Beta Damascene, Damascenone, alpha damascone, delta damascone, iso damascone, carvone, gamma-methyl-ionone, 7-acetyl, 2-acetyloctahydro-2,3,8,8-tetramethylnaphthalene, 2,4,4,7-tetramethyl-oct-6-en-3-one, benzyl acetone, beta damascone, damascenone, methyl dihydrojasmonate, methyl cedrylone; and[[/or]] mixtures thereof.
11. (Currently amended) A chemical entity according to claim 9 wherein said hygiene agent is selected from the group consisting of pentadecanol, cinnamaldehyde, ionone, glutaraldehyde, citronellal and~~[[/or]]~~ mixtures thereof.

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12. (Currently amended) A chemical entity according to claim 9 wherein said insect control agent is selected from the group consisting of an aldehyde-based compound, preferably Citronellal, Rotundial citronellal, rotundial and[[/or]] mixtures thereof.
13. (Currently amended) A chemical entity according to claim 9 wherein said bleaching agent is selected from the group consisting of Tetra-Acetyl Ethylene Diamine, Nonanoyl benzene sulphonate, Phenolsulfonate ester of N-nonanoyl-6-aminocaproic acid, tetra acetyl ethylene diamine, nonanoyl benzene sulphonate, phenolsulfonate ester of n-nonanoyl-6-aminocaproic acid and[[/or]] mixtures thereof.
14. (Currently amended) A chemical entity according to claim 6 wherein [[the]] said amino acid sequence comprising [[a]] said cellulose binding domain is selected from the group consisting of CBDs CBHII from *Trichoderma reesei*, CBDs CenC, CenA and Cex from *Cellulomonas fimi*, CBD CBHI from *Trichoderma reesei*, CBD Cellulozome from *Clostridium cellulovorans*, CBD E3 from *Thermonospora fU.S.C.a*, CBD-dimer from *Clostridium stecorarium* (~~NCIMB11754~~) XynA, CBD from *Bacillus agaradherens* (~~NCIMB40482~~), CBD family 45 from *Humicola insolens*, and[[/or]] mixtures thereof.
15. (Currently amended) A chemical entity according to claim 14 wherein [[the]] said amino acid sequence comprising [[a]] said cellulose binding domain is CBD family 45 from *Humicola insolens*.
16. (Currently amended) A chemical entity according to claim 7 wherein said amino acid sequence comprising [[a]] said cellulose binding domain ~~comprising~~ further comprised by at least one Lysine amino acid, is selected from the group consisting of CBDs CenC, CenA and Cex from *Cellulomonas fimi*, CBD Cellulozome from *Clostridium cellulovorans*, CBD E3 from *Thermonospora fU.S.C.a*, CBD-dimer from *Clostridium stecorarium* (~~NCIMB11754~~) XynA and/or CBD from *Bacillus agaradherens*, (~~NCIMB40482~~) CBD from Bacillus agaradherens and mixtures thereof.
- 17-23. (Canceled)
24. (Currently amended) A laundry detergent and/or fabric care composition comprising [[a]] the chemical entity according to claim 1, ~~and another a laundry detergent, and/or a fabric care ingredient and mixtures thereof.~~

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25. (Currently amended) A laundry detergent and/or fabric care composition according to claim 24 which is in ~~the form of an~~ a form selected from the group consisting of an additive, a pre-treatment, a post-treatment, a soaking treatment, ~~and/or~~ a rinsing treatment composition and mixtures thereof.
26. (Currently amended) A laundry detergent and/ or fabric care composition according to claim 25 further comprising a cationic surfactant comprising two long alkyl chain lengths.
27. (Currently amended) A method of treating a fabric comprising the step of contacting said fabric with a chemical entity according to claim 1 or with [[a]] the laundry detergent and/or fabric care composition according to claim 26 for fabric care, including, wherein said method conveys a fabric care benefit selected from the group consisting of anti-wrinkle, anti-bobbling, and anti-shrinkage, ~~properties to fabrics, for static control, fabric softness, fabric freshness, colour appearance, and fabric anti-wear properties, and benefits~~ whiteness maintenance, insect control, cleaning, stain removal, sanitization, dye transfer inhibition, and mixtures thereof.
- 28-29. (Canceled)
30. (New) A method of treating a fabric comprising the step of contacting said fabric with the chemical entity according to claim 1, wherein said method conveys a fabric care benefit selected from the group consisting of anti-wrinkle, anti-bobbling, anti-shrinkage, static control, softness, freshness, colour appearance, anti-wear properties, whiteness maintenance, insect control, cleaning, stain removal, sanitization, dye transfer inhibition, and mixtures thereof.
31. (New) A chemical entity according to claim 1 wherein said chemical component is linked to said amino acid sequence comprising a cellulose binding domain via a weak bond.
32. (New) A chemical entity according to claim 31 wherein said chemical component is selected from the group consisting of perfumes, hygiene agents, insect control agents and mixtures thereof.
33. (New) A chemical entity according to Claim 1 wherein said polyethylene glycol derivative is selected from the group consisting of polyethylene glycol nucleophilic derivatives,

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polyethylene glycol carboxyl derivatives, polyethylene glycol electrophilically activated derivatives, polyethylene glycol sulfhydryl-selective derivatives, polyethylene glycol heterofunctional derivatives, polyethylene glycol biotin derivatives, polyethylene glycol vinyl derivatives, polyethylene glycol silane derivatives, polyethylene glycol phospholipid derivatives and mixtures thereof.

34. (New) A chemical entity according to Claim 33 wherein said polyethylene glycol heterofunctional derivatives are selected from the group consisting of POLYETHYLENE GLYCOL-(NPC)<sub>2</sub>, POLYETHYLENE GLYCOL-(NH<sub>2</sub>)<sub>2</sub>, t-BOC-NH-POLYETHYLENE GLYCOL-NH<sub>2</sub>, t-BOC-NH-POLYETHYLENE GLYCOL-CO<sub>2</sub>NHS, OH-POLYETHYLENE GLYCOL-NH-tBOC, FMOC-NH-POLYETHYLENE GLYCOL - CO<sub>2</sub>NHS, POLYETHYLENE GLYCOL-(NPC)<sub>2</sub> and mixtures thereof.
35. (New) A chemical entity according to Claim 34 wherein said polyethylene glycol heterofunctional derivatives are selected from the group consisting of POLYETHYLENE GLYCOL-(NPC)<sub>2</sub>, POLYETHYLENE GLYCOL-(NH<sub>2</sub>)<sub>2</sub>, t-BOC-NH-POLYETHYLENE GLYCOL-NH<sub>2</sub> and mixtures thereof.
36. (New) A chemical entity according to Claim 35 wherein said polyethylene glycol heterofunctional derivative is t-BOC-NH-POLYETHYLENE GLYCOL-NH<sub>2</sub>.